THE FARMERS' CABINET,

DEVOTED TO AGRICULTURE, HORTICULTURE, AND RURAL ECONOMY.

Vol. I. **July 1, 1836.** **No. 1.**

———"'Neath yon low roof he lies,
The husbandman with sleep sealed eyes;
He dreams of crowded barns, and round
The yard he hears the flail resound.—*Henry K. White.*

TO THE PUBLIC.

In presenting this work to the public, the editor would simply say that it is designed to promote the interests of practical agriculture. He is aware that great objections exist among many to what is denominated book farming—All, however, will admit that great and astonishing improvements have taken place in agriculture within the last twenty years, and that these improvements are fairly to be attributed to repeated experiments, and the diffusion of light and knowledge among the agricultural classes of our land.

It will be his object to furnish the patrons of the Cabinet, with valuable extracts from papers treating on all the various branches of agriculture; and it would afford him no little pleasure, if practical farmers would furnish communications embracing their opinions and experience on agricultural subjects, the results of experiments, &c. By this means, great improvements, instead of being confined to individual practice, or to a neighborhood, would be widely diffused to the benefit of many.

We make no great promises—we are willing to rest the success of the enterprise on the merits of the work, sensible that if deserving of patronage, it will be liberally sustained by that enlightened and independent class of citizens to whose interests it is devoted, and to whose fostering care it is now commended.

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On Irrigating Meadows.

Irrigation is extensively practised, and indeed is essentially necessary in southern climates, such, for instance, as Spain, Portugal, Italy, Egypt, &c., where the heat is unremitted, and the land seldom visited by rains in summer. It is a vast improvement, but happily it is not necessary to any great extent in our highly favored country. The main, and indeed, we may say, the only objection that can be urged against this branch of improvement, is the great expense necessarily attending systematic irrigation, as the entire surface is required to be graduated, in order that the water may not only be spread over, but completely taken off, the surface as occasion may require.

We beg leave to recommend to the attention of our readers, the following paper on this subject, furnished the editor of the Genesee Farmer, by E. WILBUR.

The plan he recommends is certainly worthy of trial; it will cost but a trifle, and no doubt produce in return, a hundred fold for the labor and expense devoted to the experiment. Should any of our readers make the

experiment, we should be gratified if they would forward the results to us for publication.

As there has been considerable said in thy paper on the subject of irrigation, it may perhaps by some be thought unnecessary to say any thing further on the subject; but, as it is one of considerable importance, perhaps there cannot well be too much said; and the scarcity of fodder for the two past years will be a sufficient excuse for what I may offer on the subject.

In the first place, it is my opinion that if the water in the state of New York should all be used to the best advantage, which is now useless, or perhaps, I might say worse than useless, there might be an addition of hay through that means that would be worth one million of dollars, and perhaps more. This calculation to some may look wild, but it is nevertheless true, for there are but few farms but what have some streams running through them some part of the year—some little swales where water runs for a considerable time in the wet part of the spring. Now all this may be used to advantage where the ground descends enough to take them from their natural channel. Do not be scared for fear it will require some work, but try it and be satisfied for yourselves. I have tried it and know it to be true. I once bought a small farm in Yates county, on which there was scarcely an acre of natural meadow ground. Its former occupant did not cut any hay on the farm, but used to mow around the neighborhood on shares wherever he could get a chance; and so I had to do the first year, until I ploughed the ground and seeded it, for it was as dry and barren almost as a road; I mean the piece which I selected for my meadow, of perhaps about seven acres, on the lower side of my farm. The farm all descended considerably to the east, and the object of selecting that place for my meadow was that I might get some water on it in wet times.—The road runs up and down the hill on the side of my meadow piece, and nearly through the middle of it there run a little swale about the same direction, perhaps in some places two rods wide, and in others not so wide.

Well, some may say, what of all this?—What has the road and this little dry swale to do with your meadow? for the water did not run there perhaps half of the year. I have been pretty particular in describing the situation, in order to show the effect of making the best use of water when we have a chance, and that it is not always necessary to have a double stream in order to raise heavy hay. Well, now for the management. After I had got my piece of land seeded for meadow, the next thing was to make use of the water, which I did in the following simple and easy manner:

I took my team and plough in the spring of the year, when the water runs pretty freely in this swale, when I thought I could carry the water on the highest ground in the meadow; after starting a few paces, I stopped for the water to follow, and observe the current, so as not to get so high that the water would not follow, or so low as to give too much current. In this way I carried it to the highest and driest part of the ground, and then let it spread over as much as it would. But little more needed to be done to the ditch than to make the furrow and clean it out a little with a hoe. I made several other furrows from the swale below the first one in the same manner, to carry the water that drains off into the swale again. In this way I lose but very little.

Almost every body has noticed, that in the spring of the year, when the snow is going off, or after a smart shower, that the ditches by the road side will be filled with water, and if the road runs a little up hill, the wash of the road will run off, and generally into some swamp or hollow, where it does but little if any good. To prevent this waste, I made several furrows from the road side to carry the wash into the meadow.

And what was the effect produced by these few furrows, which at first did not perhaps cost me more than a day's work? Why, the effect was such, that it paid me an hundred fold for the seven acres after the first year.—When the sod got well made so as to grow thick, it produced for several years while I owned it, from two and a half to three tons of hay to the acre; and the man that I sold it to, told me last year that he hardly ever saw such grass; there was hardly room on the ground to make the hay after it was mowed. Now if people could generally be made to believe this, and to pay attention to it, it would soon be found that my assertion was not very extravagant in regard to the additional quantity of hay that would result from it. But perhaps my brother farmers are so taken up with the political slang of the day, that they will do as they always have done, neglect that which most concerns them for trifles, or that which is of little consequence to them in the way of their business.

Now to conclude. If thee can make any thing out of this that thee may think will be worth the trouble, thee can do it; if not, commit it to the flames; but it really does hurt my feelings to see the loose manner in which farmers generally manage their business.—I could say much more upon the subject of farming in general, but feel myself incapable of doing any thing like justice to the subject, and therefore I forbear at present, and subscribe myself thy friend, E. Wilbur.

Indian Corn.

All, or nearly all the accounts we have published of great productions of Indian corn, agree in two particulars, viz: In not using the plough in the after culture, and in not earthing, or but very slightly, the hills. These results go to demonstrate, that the entire roots are essential to the vigor of the plant; and that roots, to enable them to perform their functions as nature designed, must be near the surface. If the roots are severed with the plough in dressing the crop, the plants are deprived of a portion of their nourishment; and if they are buried deep by hilling, the plant is partially exhausted in throwing out a new set near the surface, where alone they can perform all their offices. There is another material advantage in this mode of cultivating the corn crop; it saves a vast deal of manual labor.

There is another question of interest to farmers, which relates to the mode of harvesting the crop, that is, whether it is best to top the stocks, cut the whole at the ground when the grain is glazed, or cut the whole when the grain has fully ripened. We have stated that the experiments of Mr. Clark, of Northampton, one of the best practical farmers of our country, and of other gentlemen, showing that the grain suffers a diminution of six or eight bushels the acre, by topping the stocks; and there seems to be no counterbalancing benefit in the fodder, unless at the expense of carrying the stocks to the borders of the field, that they may be secured before the crop is gathered, and before they become blanched and half ruined. And it is no protection against early autumnal frosts, but rather exposes unripened grain to be more injured. Hence, so far as regards these two modes, all who have made a comparison, seem to concur in the opinion that stripping the corn of its tops and leaves is a bad practice. William Carmichael, of Virginia, has given us in the Farmers' Register, his experiments in this matter, which go to corroborate the conclusion we have drawn. He took, promiscuously, 100 ears from corn that had been topped, and 100 ears from that which had not been topped, growing side by side. The first weighed on the cob 50 lbs., shelled 41 lbs., and measured 21 qts., 1 pt. The other, 54 lbs.; shelled 46 lbs., and measured 25 qts.; showing a difference of nearly one-fifth in favor of unstripped or untopped corn. The fact is, that topping not only prevents the further elaboration of the sap, which can only take place in the leaves, and which is necessary for the growth of the corn, but it deprives the grain of much that is already elaborated, and on its way to the grain, if a fruit tree is deprived of its leaves, before the fruit has attained its growth, or mature flavor, the fruit will no longer grow, nor will it attain high flavor, for its supply of elaborated food, or vegetable blood, is cut off by the loss of leaves. We have noticed this particularly in the plum.

Satisfactory experiments have not been made to determine whether it is most advantageous to cut the crop when the grain is merely glazed, or to wait till it is perfectly ripe. This will depend upon the amount of loss, if any, in the grain, by early harvesting; the relative value of the grain in fodder, and the prospects of both being injured by early frosts; for neither are liable to suffer from frost after the crop has been cut and put into shocks. It is to be noticed, that in early cutting, the stalks are succulent, and abound in elaborated sap, on its descent from the leaves to the grain, and that this supply of food to the grain continues to flow probably for some days after the corn is in the shock, and if so, the grain itself continues to improve, though we think it likely that the crop undergoes some trifling diminution. But if frost is likely to intervene before the complete maturity of the crop, there is no doubt but the corn will suffer less in shock than it will standing, while the fodder will be materially injured by frosts. Admitting that there is a small loss in grain by early cutting, though it is undoubtedly less than when it is topped, the difference in the value of the fodder, under the two modes of management, is vastly in favor of early harvesting. We do not pretend to calculate to a nicety the difference in nutritious properties of corn stalks cut in a succulent state, early in September, well cured and well housed, and those left standing till October or November in the field, but we should think it fifty per cent. Well cured corn stalks afford an excellent winter food for neat cattle; and when fodder is likely to be in demand, they may be made to contribute largely to the profits of the farm. Several of our acquaintance have kept their neat stock almost entirely upon this fodder during the past winter, and we have done the like, having first cut ours in a cutting machine; and so far as we can learn, the cattle kept upon them are in excellent condition.

The preceding consideration justifies us in recommending, that in the management of the Indian corn crop, the following rules be observed, at least partially, so far as to test their correctness:

1. That the corn harrow and cultivator be substituted for the plough in the culture of the crop.

2. That the plants be not hilled, or but slightly so; this not to prevent the soil being often stirred, and kept clean. And,

3. That in harvesting, the crop be cut at the ground as soon as the grain is glazed.—*Cultivator.*

Progress of Agriculture in England.

The introduction of fallows between successive corn crops, was a very great improvement on the previous practice; but the substitution of green crops for fallow, on all but stiff clay lands, has been the greatest of improvements ever made in agriculture; and has effected as great and beneficial a revolution in it as the introduction of the steam engine and of the spinning frame has done in manufactures. There is abundant evidence to show, that the culture of turneps, as a field crop, was carried on to some extent in several English counties, in the latter part of the 17th century. But the practice spread only by very slow degrees; and it was not till its introduction into the county of Norfolk, in the reigns of George I., and George II., when it was prosecuted on a large scale by Lord Viscount Townshend and others, that its signal importance became obvious.

At the period referred to, the whole north-western part of the country, which has long been one of the best cultivated districts of the empire, consisted of mere sandy wastes, sheep walks and warrens, worth little or nothing. These were converted into highly productive arable land, by enclosing, marling, and the aid of the turnep husbandry, which is as it were the corner stone of the Norfolk, or improved system of husbandry. The same practices that had produced such splendid results in Norfolk; that had made sandy wastes yield the most luxurious crops of wheat and barley, have been gradually extended, with similar effects, to many other parts of the kingdom. The produce in corn of the light soils in all the moderately well cultivated districts of the empire, has in consequence been more than trebled; at the same time that a vast supply of green food has been obtained for the feeding of cattle and sheep, and the production of the most valuable manure.

But, signal as has been the improvements in arable husbandry since 1760, the improvements made in stock husbandry, or in the breeding and fattening of cattle, have been still more considerable. No efforts for this purpose seem to have been made with judgment, and proper perseverance till after 1760, when Mr. Bakewell, of Dishley, in Leicestershire, began his career. Mr. Culley, of Northumberland, soon after entered on the same course; and the signal success by which their efforts were attended, roused a spirit of emulation in a host of others. But the rapid increase of manufactories and commerce, and consequently of the town and population, after the peace of Paris, in 1763, by creating a corresponding demand for butchers' meat, gave the principal stimulus to the improvements that have been made in stock husbandry. It was not easy to overrate their importance.

We have already seen that, at an average, the weight of cattle and sheep have been a great deal more than doubled since about 1760; so that a stock of 5,000,000 head of cattle at present, would be more than equal to 10,000,000 at that epoch. But the number, as well as the weight of the cattle, having been materially increased in the interval, the supply of butchers' meat must have increased in a corresponding proportion, or been at least trebled. There has also, owing to the same cause, been a very great increase in the produce of wool. The supply of the latter article, produced in England and Wales, in 1800, was estimated at about 384,000 packs, at 240 lbs. each. But, owing to the increased size of the animal, and the greater weight of the fleece, the same number of sheep that produced 384,000 packs, in 1800, were estimated by the best wool-growers and wool-staplers, to produce 453,000 in 1830, being an increase in the interval of no less than 20 per cent. It is too true that the quality of the wool has rather deteriorated, for it seems to be impossible to procure both a heavy and a fine fleece. Taking, however, the increased weight of the carcass and the increased weight of the fleece into account, sheep are believed to be more profitable at present than at any former period; and, for the last three or four years, they have been the most productive species of stock kept in the kingdom.—*Edinburgh Review.*

"Flemish Husbandry."

From our earliest recollections of agricultural matters, Flanders has been considered proverbial for fertility; and it would seem from the examination which we have given to the work before us, that its agriculture justly merits the high character which it has acquired. And yet, with partial exceptions, the soil is not naturally rich; it is POOR, such as we should denominate very poor. It is mostly a flat, wet, cold, sandy district. Whence then its productiveness? The answer which may be gathered from our notes may afford useful lessons in American husbandry. Its productiveness arises,

1. From the small size of farms, and keeping them constantly in crop; no man attempting to manage more than he can manage well.

2. From a just estimate of the value of manure, the food of plants, and a judicious husbanding and application of it, frequently for years in succession to the same field.—

The urine, sweepings, and other animal and vegetable matters, which we waste or disregard, contribute more to the fertility of their soil, than all the manure we apply, does to the fertility of our soil.

3. From a rotation of crops, two of the same kind never following each other, found, from long experience, to be best fitted to promote the farmers' ultimate profits.

4. From the extensive introduction of clover and root crops, which meliorate the soil, feed and fatten the farm stock, and make large returns in the form of manure.

5. From the cutting the forage, and grinding the grain, for their cattle, thereby greatly lessening the expenditure.

6. From the farmers giving their individual attention to their farms; and from their industrious, frugal habits of living. No lumbering, no fishing, no speculation, no hankering after office.

In the work under consideration, there is one sentence worth quoting entire, for the good example it holds out to us, viz: "No farmer is without a well cultivated garden, full of the best vegetables, which all appear at his own table." "A beggar is scarcely to be seen, except in the towns, and but few there."

Manure is an article of commerce; and the demand for it is so great, that every material for it is sought after with avidity, and the towns and pavements are hourly resorted to with brooms and wheelbarrows, as a source of profit, and even the chips which accumulate in the formation of wooden shoes, are made to constitute a part of the compost dung heap. Hence the towns and farm buildings are remarkably clean and neat. In winter, cows receive sixty pounds of turneps, sometimes boiled with straw, per diem.

Destructive Insects.

Not only thorns and thistles, but hosts of noxious insects have been inflicted on degenerate man. My attention has been chiefly directed against the latter evil.

The character of some of these insects will be desoribed in treating of my warfare against them.

The first in my series, is probably of American origin, as in no system of entomology can I find a description of the insect which has proved so destructive to our peach trees. I have to rely on my own observation for its history and description. It was probably unobserved by us prior to the present century.

In the autumn of 1800, I first saw the fatal malady in the peach trees about Philadelphia; the next year it had reached Burlington, and thence continued its march northward about twelve or fifteen miles a year. In 1807, in a choice collection of fruit of my own, every tree had the premonitory symptoms of the yellows: a few miles north escaped that year. Having made a careful dissection by splitting and barking several trees, I could discover no cause, but ravages of the worms between the bark and wood. Collecting a number of the worms, I confined them in glass and hatched from them the perfect insect; a moth or miller, small in comparison with the worm; white or light gray, with dark spots, wings convolute, like the section of a crow quill split longitudinally. This phalena or moth lays its eggs on the leaves of the peach tree; when hatched, the larva or maggot subsists itself first on the leaf, until it has acquired sufficient size and energy to migrate to a more suitable and permanent home for winter: this is between the bark and wood of the tree, near the ground. Here it enlarges its domicil. A sickly state of the tree follows, and if they congregate in sufficient numbers to circumvent the tree, certain death is the consequence, by intercepting the communication between the root and body of the tree.

The larva of the peach insect is herbivorous, and in this state of existence subsists on the tender lining of the bark; living in a cleanly manner, it deposits all filth outside the door, by the dark powdery appearance of which its abode may be detected. In its chrysoiloid state, its appearance is smooth and glassy. It frequently happens when seeking these worms, a chrysalis very different is found; this is the sirex or tailed wasp, the natural enemy of the peach worm; the sirex is a restless, fidgety insect, resembling the wasp; its young, like that of the other wasps and hornets, is carniverous. It may be observed about the neighborhood of the peach worm's habitation, at the door of which it lays its eggs; the product, a worm, creeps into the bowels of the peach worm, feeds on its carcass and occupies its coat. Its chrysalis, unlike that of the peach worm, is rough and filthy, caused by the sweat and writhing of the victim of its rapacity.

I have been thus particular in noticing the sirex, because, being a usurper of the abode of its foster parent, it has been falsely accused of being the mother of mischief, instead of a friendly ally, which should be patronized. Among others, the Sussex New Jersey Register, had, about six years ago, a belligerent article against this supposed enemy.

Knowing that, even in a moderate degree, *heat* proves fatal to the cut-worm, I was led to try its effect on the peach worm; having placed several in the hollow of my hand, I found that water not uncomfortable to my skin, killed them. I thence commenced applying boiling water from a watering pot, (without

the nose,) pouring it around the tree, about 18 inches above the ground in sufficient quantity to heat the bark; the quantity was varied according to the thickness of the bark and size of the tree; this proved completely successful for several years, and as long as it was continued.

The time for using the heat, was the last of summer, and again the middle of the autumn, lest some might have escaped or more recently arrived.

The Cut-worm.—This is the offspring of the *phalana devastator;* wings horizontal; white with small dark spots; under wings orange; conceals itself from the sun during the day; lays its eggs near the root of grasses. These worms are of a bluish color, and they travel only in the night; they cut off young cabbages, beans and corn; the latter is injured, but not destroyed by them.

To shun its depredations in gardens, be careful to plant at a distance from any grass plat or lawn. I have lost an entire crop of late planted beans by them, by planting near a grass plat. Frequent superficial hoeing, in the middle of the day, by exposing to the sun, proves fatal to many of them.

Turnep fly, is another familiar enemy. I have witnessed many a crop of cabbage and cauliflower plants, also melon and cucumbers destroyed by these minute insects. To obviate this, on the first mentioned small seeds being sown, I have wetted the ground to the depth of an inch or more with boiling hot water; thus destroying the flies and their eggs, and at the same time expediting the germination of the seed. For melons and cucumbers, I sow and rake radish or turnep seed, on and around each hill; the flies are attracted by these, their more favorite food, from the melons, &c. Against the striped bug, another destroyer of melons, a brood of young chickens is a sufficient protection for a whole garden.

I do not presume, Mr. Editor, to think the above the only or best means of abating the evils we suffer from insects; my object is rather to elicit from others the result of their observation and experience; the subject, in my view, is important. Has any one, more fortunate than myself, discovered the insect, for insect it most probably is, that produces the deforming warts and threatened destruction of our plumb trees?

A knowledge of the agent might lead to the means of counteracting the influence. May we not hope that some means may be discovered for palliating the impending evils from the wheat insect, by fire or smoke of some offensive kind, as of horns or hoofs of animals, made in the evening, at a particular stage of the opening ear. Many remedies, and some of much practical utility have been suggested against the Hessian fly. We ought not to submit to, nor look lightly on these pests.—Ants, insignificant as they appear in our view, have been suffered to multiply to such an extent on the island of Granada, that a premium of £2,000 sterling has been offered from the public treasury, for the best plan for their destruction. Poison and fires are employed.

Let us exert our energies against the whole race of these *destructive insects;* let us devote a few hours each year to this warfare, and although we may not gather laurels, we shall assuredly reap a rich bounty.

Senex.

Kinderhook, March, 1836.

Milch Cows.

The attention of farmers is invited to the consideration of the character and condition of our milch cows.

How much ought a cow to yield to be worth her keeping! What is the average time that our cows are in milk? Is there much if any waste of fodder among us by keeping cattle that yield little or no return of profit? Questions like these, and there are many such, ought to be put and answered:—it may turn out that our dairy stock is extremely low in character, and its management wasteful.

If something like an average quality of milch cows could be settled to afford a standard, and it should be understood that no good farmer would keep an animal for milk that fell below it, all the cows in the country would soon come up to the standard and go beyond it.

A milch cow of *medium* quality, in this State, will give, it is supposed, 12 quarts of milk per day for two months after calving, and 7 quarts per day on grass for the next 4 months, and 4 quarts per day for the following 2 months, and perhaps 2 quarts 1 month longer. Altogether 1500 qts. in a year.

It takes 9 quarts of milk to make a pound of butter, and 4 quarts to yield a pound of cheese. The skim milk and dairy whey may be valued at $3 a cow per annum.

Now a cow that gives 1500 quarts of milk in a year, produces 166 pounds of butter, worth 16 cents per pound,	$26 56
Skim milk, say	3 44
	$30 00
Or, 1500 quarts of milk will give, at four quarts to the pound of cheese, 375 pounds, which at 8 cts. per pound will be	$30 00
Whey, say	3 00
	$33 00

Nothing is said of the worth of the calf, as all the milk the cow gives is credited. A

milch cow's keeping one year cannot be short of $25 in the interior.

Suppose a farmer to resolve that he would keep no cow that did not hold out a good milker nine months in the year—and that did not give sixteen quarts of milk per day for two months after calving, and twelve quarts per day the next four months, and six quarts per day the next three months, and two quarts per day the month following. Such a cow would yield per annum 3000 quarts of milk.

Here it may be remarked, that with the addition of five dollars per annum to the cost of food estimated for a cow, the nett profit would probably be four-fold.

Is it not practicable to have throughout the country, as common dairy stock, animals as good as the last described?

This question is submitted to farmers for consideration. The probability is, that in taking some pains to get stock as good, they would get even better.

If the various modes of obtaining this object were resorted to at once with zeal throughout the country, there would be a prodigious improvement in a very short time. No young animal of promising appearance for milk would go to the butcher. More care would be taken of young stock. More young stock would be retained to insure a better selection for milch cows. Farmers would think more of the advantages of employing bulls of the improved breed. Heifers would be milked with great care and very thoroughly, to get them into the habit of holding out longer as milkers. If they once dry early, no care and keeping will afterwards correct this fault. Heifers with the first calf must be fed well, and with some additional care the last three months they are in milk, to make them hold out.

The profit of a milch cow is not generally understood. Milk is not only the most nutritious, but the cheapest article of food. The food necessary for a cow in full milk, does not exceed in price, one-third of what is necessary in feeding for the butcher.

These few remarks are hastily made to draw out farmers on this subject. There is a great deal to be said upon it, and a great many facts to the purpose, which should come to light.

Cream.

The peculiarly rich cream of Devonshire, Eng., called clouted cream, is obtained by using zinc pans of a peculiar construction, consisting of an upper and lower apartment. The milk is put into the upper apartment, and after it has stood 12 hours, an equal quantity of boiling water is introduced into the lower one. At the end of another 12 hours, the cream is taken off much more easily and perfectly than in the common way, and is also more abundant and richer. The result of 12 experiments carefully made was as follows: 4 gallons of milk treated as above, gave in 24 hours, four and a half pints of cream, which yielded, after churning 15 minutes, 40 ounces of butter; 4 gallons treated in the usual way, gave, in 48 hours, 4 pints of cream, which yielded, after churning 90 minutes, 36 ounces of butter. The increase in the quantity of cream is 12½ per cent.

The same principles may be applied in the use of common pans. It would be very easy, for instance, to prepare some kind of trough, or tin, perhaps, or even wood, into which the pans could be set, and hot water afterwards introduced.

As a close trough would be much better than an open one, you may have a cover with holes in which to set the pans. An ingenious yankee tinman would soon make a range in this way, sufficient for a common dairy, at no very great expense. It would last indefinitely. If it is true, that you would thus get some two pounds more butter a week from each cow, the apparatus and the trouble would soon be paid for,—to say nothing of the time saved in churning. We do not see why zinc pans—which are said to be decidedly preferable to any other for the dairy—with the tin range as above, would not be quite as good as the complicated and expensive Devonshire pans. And it would be easy for a dairy woman to satisfy herself respecting the *principle*, without either. By using cold water instead of hot, the range would serve to keep milk sweet in warm weather.—*Vermont Farmer.*

Notes by the Way.

I was at old Fort Hunter, on the Susquehanna, above Harrisburg, in 1828. The highly respectable owner of this beautiful situation, Col. M'Allister, a gentleman of science and refined observation, treated my fellow-travelers and myself with great courtesy, and showed us some household conveniences worthy of imitation; and among others, his Milk-house, Smoke-house, and Clothes-line. I thought much of these, and have in part profited by my observation. That the readers of the Cultivator may profit also by these improvements, I will briefly detail them in part.

The Milk-house was built in the north-east side of a slope near the well, and not far from the mansion. It was composed of stout stone walls, and the roof, which rose six or eight feet above the surface of the ground, appeared to be covered with earth or tile, and was deeply shrouded with the scarlet trumpet creeper, (*Bignonia radicans*,) then in splendid bloom. The interior of the house, princi-

pally under ground, was fitted up with cisterns, in which water stood nearly to the tops of the pans of milk, which were arranged in them.

The house was entered by a flight of steps on the south, and there was a window on the north, which could be opened or darkened at pleasure, to give ventilation. For want of a natural spring, which many Pennsylvanians consider almost indispensable in a milk-house, the water was conducted in a pipe from the well-pump, and after filling the cisterns to a certain height, passed off at the opposite side. The object was to obtain a cool temperature, in the heat of summer, which greatly facilitates the separation of the cream from the milk, and this object was amply effected, with the labor of working occasionally at the well-pump.

The Smoke-house was a wooden octagon building, perhaps 16 feet in diameter, perfectly tight, except the door-way. The peculiarities of this building were, it was set a foot or more above the ground, and was perfectly dry, and bacon, hams, &c., were kept hanging around its walls all summer without becoming damp or mouldy, or being injured by flies; and in the second place, no fire was admitted into the building, the smoke being conveyed into it through a tube from the outside, where it was generated in as above.

The Clothes-line we saw had been six years in use, without sensible injury, though it had remained all this time in the open air. It had always been wound up, upon a small windlass, as soon as the clothes had been taken from it, where it was protected from the rain by a roof. Several posts, with notches near their tops, were placed in a range upon the grass plat, upon which the line could be drawn and fastened in two minutes, and from which it could be loosened and wound up in as short a time. It is but a small affair, but such small affairs make a large aggregate in ordinary life. "Take care of the cents, and the dollars will take care of themselves."

Jesse Buel.

Knowledge.

BY DR. E. HOLMES.

Why should not a Farmer know a thing or two?

Why should not a farmer know more than other folks? They certainly ought to, for they have in this country more to do than others. They have to make more use of the powers or laws of nature than other folks;—they have to use the elements for tools—they are indeed practical chemists (whether they are aware of it or not) for they have to make use of the various substances which Nature gave them—they have to combine, separate, modify and change both simples and compounds. Their farm is at one and the same time a laboratory and a workshop, and in proportion as they operate in such a way as to afford the several elements of which the substances are composed, and upon which they are operating, to disunite or to combine, will be their success.

They depend upon the vegetable world for subsistence—their labor is among and upon the plants of the earth—why should they not know the proper names and nature of every tree and herb and plant? They have to contend with insects and animals—why should they not know the habits and the natures of these as well or better than any other class of people? They have to work upon the earth, they have to put it in a condition to bear a good crop, they have to change the state of it and adapt it to the various purposes and crops—why should they not know more and better respecting the ingredients of their soil—the various mineral and fossil substances which they may find either upon their own or others' farms? They have to "discern the face of the sky," and watch the changes of the atmosphere, and regulate their movements in accordance to the changes of the weather, temperature, &c.—why should they not know as much or more of the composition of the air or atmosphere, and the science of mineralogy than any other people? They must use tools or implements of labor. They must take advantage of the principles of mechanics to practical life. Is there any good reason why they should not know as much or more than others respecting the science of Mechanics or Natural Philosophy? In this country they have to contribute largely to the support and formation of the government, and upon them depends the election of rulers and lawmakers—why should they not understand the fundamental principles of national law, political science and political economy? They have to administer to the sickness of animals under their charge—why should they not perfectly understand comparative anatomy, at least, and also, physiology and the symptoms and treatment of diseases, as well as any others.

Indeed, so wide is the field of his labors, so numerous the objects with which he is connected, so various the operations which he has to perform, that we verily think that a farmer ought to be the most learned man upon earth. But can a man conquer or make himself perfectly familiar with every science and every thing? By no means—yet nevertheless he should have his mind so well stored with the general principles of all the sciences, that he can be guided by them when it becomes necessary to be more particular, and to know when he employs a man devoted particularly to any one branch, whether he is competent to the task, and will discharge his duty to him with fidelity and precision.

From the Columbus Ohio Farmer.

Sweet Potatoes.

This excellent vegetable would be more extensively cultivated but for the great labor of planting and cultivating them in the usual mode, and for the difficulty of keeping them in the winter.

To obviate the first difficulty, I have, for about twenty years, ceased making hills altogether, and planted in ridges. I break up the ground well, and if necessary, harrow it —then with a barshear or cary plough, throw three furrows together. To complete the ridge, take a weeding hoe or fine rake and draw the dirt up first on one side and then on the other, to about the height potato hills are usually made. Open a trench on the top of the ridge and drop the slips five or six inches apart, cover with the hand about two inches deep.

This mode is attended with several advantages—requiring less ground, less labor in preparing the ground, less in cutting the seed roots, less in bending ridges than hills, and greatly less than digging. The last operation is done mostly with the plough. After clearing off the vines run a furrow along the ridge, taking down about two-fifths on one side, return and throw off as much on the other side, leaving about one-fifth in the middle, nearly full of potatoes, which can be easily torn to pieces with the hand. A hoe will be necessary to move the dirt thrown out by the plough, so as to facilitate the picking out of the potatoes.

This mode of cultivating and taking up the crop, reduces the labor in my estimation nearly one-half.

To obviate the difficulty as to keeping, I put my potatoes in a garner in the cellar, putting chaff or dry dirt around and on them —put them up the same day they are dug. When freezing weather comes on, close the cellar windows. In this way I had sweet potatoes for the table throughout the last cold winter.

Plant about the first of April, and be sure to dig after the first frost hard enough to bite the leaves.

Though the following communication appeared in a Connecticut paper in 1830, its suggestions may be new and important to many who are at present interested in the culture of the peach tree.

The Peach Tree.

From a desire to encourage the culture of the Peach Tree, we offer the following as the result of experiment and observation.

It is generally known that worms, near the surface of the earth, destroy them by eating the bark; the object is, therefore, to find a preventive, in order that the trees may become aged in a healthy state.

It is evident that these worms pass through the common change, and assume the form of *millers*, early in the summer, and deposit their eggs in the bark as low as they can find access to it; and that the worms proceeding from them begin to operate in the latter part of the summer, when they have been found the size of a common pin. If suffered to remain they grow to the thickness of a rye straw; each of them girdles the tree about an inch, and the wood from the wounds to the heart dies. Hence it is, that a single wound impairs the vigor of the tree and a number of them will kill it. The point to be gained, is to protect the tree from the millers, and by a simple method, we have succeeded for several years, which is recommended with full confidence.

About the first of May remove the earth from the body of the tree, and shift it to the height of 15 or 16 inches, in such manner as to exclude the millers, burying the lower part of it in the earth. We have used straw cut to the length, and about half an inch in thickness, bound on with twine. This should be removed about the first of September, as we have sometimes found the young worms in the upper part of the straw, being then readily discovered on the surface of the bark, covered by a little gum. The process should be commenced when the tree is young—they have been found in a rapid growth the first fall after it sprouted. Thus a few minutes in a year devoted to a tree, will protect it against this cause of decay—a very trifling expense compared with the value of this healthy and delicious fruit.

Jonathan Brace.
John I. Wells,
Wm. H. Imlay.

Hartford, Conn., Sept. 8, 1830.

Sugar Beets for the Dairy.

The importance of sugar beets as food for milch cows, is not generally known. Mangel wurtzel has been used to good effect for this purpose, but sugar beets are still better. They are a very productive and sure crop on good ground, and cows fed on them in winter make nearly as much milk and butter, and that too of nearly as good quality, as from the best pastures in summer. The larger proportion of saccharine matter they contain, makes them highly nutritious; the tops are also excellent fodder in the autumn when grass fails.

A man will lay hold of any pretext, to lay his fault upon another.

From the Cultivator.

On the Value of Fruit.

Good fruit will be admitted by all, to be one of the most indispensable comforts of life.—Then why do so many farmers neglect to procure it—when, with a little *pleasure* (I will not call it trouble) in grafting and inoculating it could be so easily effected. Many farmers live—or rather get along from year to year, without making any effort to accomplish so desirable an object. To such, these remarks are directed, (for to no others would they apply) in order to stimulate them to action. And as this month (May) is the season for transplanting fruit trees, I presume none will neglect to obtain a supply, and those of the most approved kinds.

We should always be well provided with young trees, particularly the peach,—as this is a short lived tree at longest, that as the old ones decay, we may replace them, and thus keep our stock good. I have noticed with regret that many peach orchards are suffered to decay, and some have entirely disappeared, without a single effort of the proprietors to replenish them. Surely so delicious a fruit is worth paying the utmost attention to. What incalculable benefits may be derived from a little attention—for instance—one in inoculating, another in transplanting fruit trees—how he is rewarded ten-fold for his labor in beholding his efforts crowned with success—to say nothing of the profits and enjoyment to be derived therefrom.

I am inclined to believe, that an orchard of well selected fruit, where we are not contiguous to a good market for it, might be made profitable in fattening our pork. If farmers would keep an accurate account of the expense of fattening their pork in the usual method of feeding corn, I think they would readily find that they were losing money. Hence the necessity of devising some cheaper method. I propose to make an experiment with boiled apples, mixed with a given quantity of meal.

Will some other farmers make some experiments of this kind, and communicate the result. Respectfully,

Geo. Willets.

Skaneateles, Onondaga Co.

The Grub, or Cut-Worm.

The ravages of this insect last spring, particularly in our corn fields, give an importance to every suggestion which may promise a preventive. The remedy suggested below, has the sanction of philosophy as well as experience, and promises the further benefit of being decidedly beneficial to the growth of the corn.

The labor and expense of making the application are comparatively trivial. It is probably the caustic qualities of the alkali afforded by the ashes and lime, that keep the worm from the circle of its influence, or destroy it. We copy the article fron the Tennessee Farmer,

"As soon as the corn is covered with earth, let a hand follow, having a bag at his side, containing ashes and plaster mixed, one-third of the latter, and two-thirds of the former, or ashes alone, either leached or unleached.—The latter would probably be preferable—and let him drop a handful on each hill of corn. We would recommend, where it can be obtained, the partial substitution of lime for ashes, in which case, to preserve the hands of the dropper from injury, it will be necessary for him to use a cup, shell, or gourd, with which to take up the lime—each bag should be large enough to contain as much of the substance used as the dropper can conveniently carry.

"We request our readers in this vicinity to give the foregoing a fair trial, and to furnish us with an accurate account of the result, both as to its effects in preventing the ravages of the cut-worm, and in increasing the crop. In our use of ashes and plaster, they were dropped on the seed corn, and covered with it. The effect on the crop was decidedly, and greatly beneficial. For preventing the ravages of the cut-worm, there is good reason to believe that it would be best to deposit the ashes on the hill after the corn is covered, and this mode will probably be found nearly, if not quite as beneficial in increasing the crop."

Woodside's Revolving Harrow—Depth of Ploughing—Spirit of Agricultural Improvement.

Sir,—I am attached to the office of the Registry of the Treasury of the United States. A portion of my duty as a clerk was to record Inventions Patented. In doing which I perceived many improvements offered in the plough, &c. This led me to remark that no improvement had been made in the Harrow; and having somewhat of a mechanical turn of mind, I concluded there was much room for improvement in that implement, and accordingly set to work to devise a new method of harrowing, or more properly speaking, of pulverizing the earth. It affords me pleasure to state that yourself and very many others have borne testimony to the valuable improvement which I have made in that implement.

After having tested my improvement, and giving it the name of Revolving Harrow, I concluded I might also make some improvement by sowing the grain from the cart to

which the harrow is attached, and flatter myself that the method devised will prove far superior to that of sowing by hand, so that I now call the implement, Revolving Harrow and Seed Cart, calculated to sow the grain, harrow it in, and cast into drills of 2½ inches apart at one operation.

Since having patented my invention, I have been at much expense in traveling with the implement, and have discovered to my surprise a great want of agricultural spirit wherever I have been, say from Albany, N. Y., to Norfolk, Va. It is a fact that our farmers, generally speaking, forget the old adage, that "that which is well done is twice done." And it is astonishing to me that 19 out of 20 are averse to deep ploughing, for I find the average depth to be five inches, and in many instances not four, particularly on the Eastern Shore of Maryland. The reason assigned by many for shallow ploughing is, that they are afraid to bring to the surface the clay soil. In my humble opinion, I would say plough six inches deep, clay or no clay. Would it not be wiser to cover the good soil by bringing the clay on the top, so that it would be protected from the heat of the sun, and the roots of the grain, which naturally shoot downwards, will then come in contact with a soil far better calculated to nourish them than that of the clay which they cannot penetrate, and which in shallow ploughing they must inevitably have to contend with.

Another reason which I would suggest in favor of turning the clay soil on the surface is, that the heat of the sun, the atmosphere and rain, &c., will have a tendency to convert it into a soil of some nourishment. I am persuaded that any soil will be soon worn out by shallow ploughing, or more properly speaking, by skimming over the surface as is generally done. There is in my opinion a very wide field open for improvement in agriculture. The common harrow or drag, moving no faster than the horse which propels it, is poorly calculated to pulverize the earth; and it is the poor opinion I have ever had of the implement, which caused me to view it as a half-and-half kind of an article; its effect on the earth I consider very deceptive, as it leaves the surface fair to the eye, so much so, that farmers are apt to think the work is well done, when at the same time beneath this smooth surface there are clods without number hid from their view. This cannot possibly be the case with my Revolving Harrow, which certainly pulverizes the earth honestly, or in other words, as deep as the ground is ploughed.

In using the drag for turning in grain, a great quantity is lost by the number of clods which are upset on clusters that cannot move the clods, nor force their way through it. I am decidedly of opinion that eight bushels of grain turned in with my harrow will produce more in the crop than ten put in with the drag. And why? Because the earth is well pulverized, and the grain uniformly sown in drills, which admit of a circulation of air calculated to prevent the stalks from mill dew.

I have remarked that those who are the least indebted are the best cultivators, as they are compelled in a measure to make the most of what they possess. Having witnessed the effect of the drag very closely since my harrow has been in operation, and without the least disposition to boast of my improvement in harrowing, I do say that the *drag* is a drag, and not a harrow; but my Revolving Harrow, which revolutionizes every thing it comes in contact with, may with propriety be called a harrow.

Permit me to remark, that I have recently received a letter of some length from the President of an Agricultural Society in Easton, on the Eastern Shore of Maryland, who appears to take great interest in any improvements in agriculture, having offered me every facility in their power to get my improved harrow introduced among the farmers in that neighborhood.

In my reply to that letter, I could not refrain from tendering my thanks to the Society for the encouragement offered therein.—When traveling through the country, I looked for, and expected to find societies established for the benefit and promotion of agriculture, but found none until I received the very welcome letter which I did from the Hon. Robert H. Goldsborough, President of the Society above alluded to. It is true there are many Societies formed on paper which prove of but little benefit.

The foregoing remarks I hope will prove of some service in having a tendency to revive the spirit of agriculture, which not only interests the farmer, but the community at large. "Bread is the staff of life."

Respectfully, your ob't servant,

JAMES D. WOODSIDE.

Washington, Jan. 17th, 1836.

The Corn Planter.

A machine of this name, for which a patent has been obtained by Henry Blair, a free man of color, of an adjoining county of Maryland, is now exhibiting in the Capitol.

It is a very simple and ingenious machine, which, as moved by a horse, opens the furrows, drops (at proper intervals, and in an exact and suitable quantity) the corn, covers it, and levels the earth so as, in fact, to plant the corn as rapidly as a horse can draw a

plough over the ground. The inventor thinks it will save the labor of eight men. We understand he is about to modify the machine, so as to adapt it to the planting of cotton. If it will accomplish (as we are inclined to believe it will) all which he supposes, it will prove to be an invention of great utility.

Manure for Farms.

The following suggestions are from the Northern Farmer, and well worthy the attention of our farmers, and the rather, since manure is to a farm what blood is to the human body.

In the spring, when the manure is conveyed into the field, it should be ploughed in immediately, and spread no faster than becomes necessary for ploughing; because at this season the warmth of the sun produces a rapid fermentation, the most valuable or liquid part of the manure escapes in the form of gas, as it is often expressed, by evaporation. Should a heap of manure at this season be covered with earth two feet deep, in a short period the whole mass of earth would be enriched by the gas, arising from the fermented manure.

To put either fresh or rotted manure in the season of planting potatoes and corn, as a general practice is injudicious, but half the quantity of fresh, unfermented manure, in the hill well mixed in the soil, would afford probably more nutriment than double the quantity of old rotten manure.

Manure being the life of a farm, every exertion should be used to procure all kinds of it. Compost, soot, ashes, lime, gypsum, burnt clay, or soft bricks pulverized, decomposed vegetable substances, weeds, leaves of trees, coarse grass, &c., will all tend to fertilize the soil. None are ignorant that such as is taken from the vaults, afford the greatest quantity of nutriment to plants. On farms it ought never to be lost. The yards for swine, ought always to be excavated, or be in the form of a basin, so that this manure in richness next to the last, should be preserved in a moist state. The same remark applies to the barn-yard for other cattle, except that the latter ought to have a level and dry margin for feeding cattle occasionally.

Farmers' Arithmetic.

PROFITS OF AGRICULTURE.

If the great Franklin had ever lived in the country, his observing eye would have noticed, and his discriminating judgment have solved the following difficult problems:

1. Farmers are more imposed on than any other class of the community; they pay nearly the whole expense of the State Government; are oppressed by a heavy tariff, and other onerous measures of General Government, and by the commercial regulations of foreign nations; never have much money—yet ever industrious, the prudent farmer grows rich!

2. The mechanic receives his 75 cents a day, yet remains poor; the farmer earns his seventeen cents a day, and grows rich!

3. Merchants, Physicians, Lawyers, and others, receive their thousands per annum and die poor, while the Farmer scarcely receives as many tens, and dies rich!

How are these strange results produced? All calculations in dollars and cents fail to account for it. Those who are determined to bring every thing to the standard of dollars and cents, pronounce agriculture to be wholly unprofitable, when the fact that nearly all the wealth of the country has been obtained by agriculture, stares them in the face. In the opinion of these calculators, agriculture is the proper pursuit of such only as have not sense enough to pursue any thing else!

The mischiefs which such calculations are doing in our country, first induced me to call the public attention to the *Farmers' Arithmetic*. But having been more accustomed to handling the plough than the pen, I am altogether unable to do justice to the subject. If some abler hand would take it up, dispel the mist now resting on the subject, and show us clearly the whole truth of the matter, it would do sufficient good to compensate the labors of the ablest patriot.

When the *mechanic* lays down his tools, and the *professional* man is idle, they are sinking, because their expenses are going on, and their profits are suspended. Not so the *farmer;* while he sleeps, his crop grows and his stock continues to increase, and when he spends a social evening with a neighbor, every thing continues to advance. The *Farmers' Arithmetic* shows that the farmer grows rich by saving, while others continue poor by spending. Others have first to make money, and then give it for meat, and drink, and raiment, while the farmer obtains all these at home. If he wants a fat lamb or pig, he has it without losing a day or two in trying to buy one. If he wants a new coat, the industry of his wife supplies it. In short, he wants but few, very few things which he cannot obtain on his own farm. Why then should the farmer repine because he has not the *money* to buy abroad? or measure his wealth by comparing his *money* with that of others, who must give it all for things which he has without buying? Surely a farmer may without a sigh resign to others the gaudy fabrics of foreign artists, while he is clothed by the labor of the hand that soothes his cares, and strews with pleasures his journey through life. When I see

a farmer appear in company genteely dressed in homespun, I think of Solomon's description of a good wife—"her husband is known in the gates when he sitteth among the elders," and most cordially do I congratulate the possessors of such a prize.

JACK PLANTER.

Things a Farmer should not do.

A farmer should never undertake to cultivate more land than he can do thoroughly; half tilled land is growing poorer; well tilled land is constantly improving.

A farmer should never keep more cattle, horses, sheep, or hogs, than he can keep in good order; an animal in high order the first of December, is already half wintered.

A farmer should never depend on his neighbor for what he can, by care and good management, produce on his own farm; he should never beg fruit while he can plant trees, or borrow tools while he can make or buy; a high authority has said the borrower is a servant of the lender.

The farmer should never be so immersed in political matters, as to forget to sow his wheat, dig his potatoes, and bank up his cellar; nor should he be so inattentive to them as to remain ignorant of those great questions of national and state policy which will always agitate, more or less, a free people.

A farmer should shun the doors of a bank as he would an approach of the plague or cholera; banks are for men of speculations, and theirs is a business with which farmers should have little to do.

A farmer should never be ashamed of his calling; we know that no man can be entirely independent, yet, the farmer should remember, that if any one can be said to possess that enviable distinction, he is the man.

No farmer should allow the reproach of neglecting education to lie against himself or family; if knowledge is power, the beginning of it should be early and deeply laid in the district school.

A farmer should never use ardent spirits as a drink; if, while undergoing severe fatigue, and the hard labors of the summer, he would enjoy robust health, let him be temperate in all things.

A farmer should never refuse a fai. price for any thing he wishes to sell; we have known a man who had several hundred bushels of wheat to dispose of, refuse 8s. 6d. and after keeping his wheat six months, was glad to get 6s. 6d. for it.

A farmer should never allow his woodhouse to be emptied of wood during the summer months; if he does, when winter comes, in addition to cold fingers, he must expect to encounter the chilling looks of his wife, and perhaps in a series of lectures, to learn, that the man who burns green wood has not mastered the A B C of domestic economy.

A farmer should never allow his windows to be filled with red cloaks, tattered coats, and old hats; if he does he will most assuredly acquire the reputation of a man who tarries long at the whisky; leaving his wife and children to freeze or starve at home.

There are three things of which the man who aims at the character of a prosperous farmer will never be niggardly, manure, tillage and seed; and there are three things of which he will never be too liberal, promises, time and credit.—*Genesee Farmer.*

Sweet Corn.

This article has been prepared by the Shakers of Lebanon in great perfection. If cooked properly, it is as sweet and fresh as though just in the milk and from the stalks. Let it be soaked 24 hours in water, and then boiled in milk and water for the table.—Nothing of the kind can be better.

To drive Bugs from Vines.

The ravages of the yellow striped bug on cucumbers and melons may be effectually prevented by sifting charcoal dust over the plants. If repeated two or three times, the plants will be entirely free from annoyance. There is in charcoal some property so obnoxious to these troublesome insects, that they fly from it the instant it is applied.

Plastering Corn.

The following experiment, performed many years ago by John Taylor, of Virginia, suggests a practice which may be adopted at the present season with great propriety by almost every farmer:

"Sowed twenty-three bushels of plaster on twenty-three acres of corn, in a large field. Ploughed in part immediately, harrowed in part, and left part on the surface ten days before it was worked in. The corn was four inches high. The weather moist. There was no difference between the three divisions. The seed of the whole field had been rolled in plaster. These twenty-three acres exceed the adjoining crop 25 per cent; its blades and tops also dried sooner.

Starch from Potatoes.

We are informed that the manufacture of starch from potatoes has engaged the attention of our enterprising neighbors in Vermont, and already become an important article of commerce, it being employed to a great extent by the New England cotton manufacturers and calico printers, with much success, as a substitute for wheat starch for

the purposes of sizing and finishing cloths. Its superiority over wheat starch is conceded, we learn, by many of the principal manufacturing establishments. It gives to fabrics a more brilliant and elastic finish, requires less in quantity and bears a less price; three important considerations, which we should suppose would induce every manufacturer to try the experiment of its use. The mode of preparation is similar to that observed in wheat starch, except that it requires a slight fermentation, which is produced by exposing it to the air for a short period.—*Troy Whig.*

Sugar from Beet Root.

M. Isnard, French Vice Consul at the Port of Boston, has addressed a letter to the Daily Advertiser, containing some interesting statements respecting the manufacture of sugar from Beets. This manufacture, it is generally known, was commenced under the auspices of Napoleon, protected by high duties, and sunk at once when those duties were withdrawn after the return of the Bourbons in 1813. It appears, however, that the manufacture was resumed in 1816, that it has increased ever since, and that it now produces annually, from eighteen to twenty millions of pounds of brown sugar, and instead of requiring further protection from the government, it is now proposed by the French Ministry to lay a tax upon it. It is found in France that one ton of beets costs on the average three dollars: that one hundred pounds of sugar may be extracted from it for an additional cost of four dollars; a pound of sugar may be manufactured thus for seven cents. M. Isnard describes the business as having been exceedingly profitable in France for the few years past.

The Husbandman.

No man, one would think, would feel so sensibly his immediate dependence upon God, as the husbandman. For all his peculiar blessings he is invited to look immediately to the bounty of heaven. No secondary cause stands between him and his Maker. To him are essential the regular succession of the seasons, and the timely fall of the rain, the genial warmth of the sun, the sure productiveness of the soil, and the certain operation of those laws of nature which must appear to him as nothing less than the exertions of Omnipotent energy. In the country, we seem to stand in the midst of the great theatre of God's power; and we feel an unusual proximity to the presence of our Creator.

The blue and tranquil sky spreads itself over our heads, and we acknowledge the intrusion of no secondary agent unfolding this vast expanse. Nothing but Omnipotence can work up the dark horrors of the tempest, dart the flashes of the vivid lightning, and roll the long resounding thunder. The breeze wafts to his senses the odors of God's beneficence—the voice of God's power is heard in the rustling of the forest, and the varied forms of life, activity and pleasure, which he observes at every step in the field, lead him irresistibly, one would think, to the source of being, beauty and joy.

How auspicious such a life to the noble sentiments of devotion! Besides, the situation of the husbandman is peculiarly favorable, it should seem, to purity and simplicity of moral sentiment: he is brought acquainted chiefly with the real and native wants of mankind. Employed solely in bringing food out of the earth, he is not liable to be fascinated with the fictitious pleasures, the unnatural wants, the fashionable follies and tyrannical vices of more busy and splendid life.

A Good Suggestion.

As a great number of things are always to be done on a farm, let every farmer carry in his pocket a paper and pencil, and as soon as any thing requiring early attention occurs to him, which cannot be done immediately, let him make a memorandum of it, and thus in a short time he will have a list of whatever is necessary to be done; and at any leisure moment, by consulting this list, he determines at once what next needs his attention most. It is a good practice also to write down every evening whatever is to be done next day, and at the end of every week what is to be done the next week. By pursuing this course, the farmer has the whole of his business at one view under his eye, and knows how to spend every hour to the best advantage; and he rarely finds any unexpected business to call him suddenly away from his present employment, and thus a great deal of time and vexation are saved, which would otherwise be wasted in being perpetually hurried from one kind of labor to another, leaving every thing but half finished in the bustle.

Maturity of Grain on Old and New Lands.

I believe it will be found that the richer the land, the longer all the crops will be in coming to maturity. On poor sandy soils, vegetation is rapid and short; on new lands, the soil, being charged with vegetable food, will of course be richer, whereas, old lands, exhausted of vegetable food by cultivation, is consequently poorer; and I conceive it makes little difference whether land be elevated one hundred or a thousand feet above the level of the sea. If it be rich, the crops will be longer in coming to maturity.

Agricultural Hymn.

Great God of Eden! 'twas thy hand
That first clad earth in bloom,
And shed upon the smiling land
Nature's first rich perfume:

Fresh at thy glance the flowers sprang,
Kiss'd by the sun's first rays—
While plain, and hill, and valley rang
With life, and joy, and praise.

God of the clouds! thy hands can open
The fountains of the sky,
And on the expectant thirsty crop
Pour down the rich supply.

The farmer, when the seed time's o'er,
Joys in the mercies given—
Thinks on thy promis'd harvest's store,
And smiling, looks to heaven.

God of the sheaf! to thee alone
Are due our thanks and praise,
When harvest's grateful labor's done,
On plenty glad we gaze:

Then shall our thoughts on Heaven rest,
Thy grace we will adore,
And thank that God, whose mercy's blest
Our basket and our store.

From the Greenfield (Mass.) Advertiser.

Beautiful Incident.

The Cliff Swallow is not, we believe, a regular summer sojourner in these parts. His visits are believed to be only occasional—few and far between. At any rate, we are informed that he has no regular haunts. The farm that he gladdens this year, may not be again cheered by his presence for many coming seasons. We have an excellent anecdote to tell of a pair of these interesting birds. It was related to us, if not by an eye witness, by one who received it from an undoubted source. These birds, as do nearly all the birds of this latitude, take their departure hence with the summer, for warmer skies. Several years since, a large number of them had their nests upon a barn in the south part of Deerfield. At the usual period their northern dwellings were abandoned, and the tribe took its flight for the tropics. After a time a solitary individual was observed lingering among the forsaken habitations. Various conjectures were started to account for his tarrying. It might be that he had not strength enough for so distant an expedition; or he might have been accidentally left behind in the general migration, and feared to encounter the perils of the journey alone. The autumn passed away, and still that solitary stranger remained, braving the frosts and the pelting of the storms of winter. Spring came, and yet he was there. An occurrence so singular, and contrary to the habits of the migrating tribes, caused his motions to be watched with more attention. At length another head was observed, protruded from one of the nests, which seemed to be the abode of the bird, which had been remarked with so much interest. On examining that nest the mystery was beautifully solved. Another swallow was found there a prisoner. One of its legs had become entangled by a thread or horse hair, which had been used in the lining of the nest, and held it there a captive. Yet it was not deserted by its faithful mate. Through all the long and dreary winter, this patient, self-devoting love supplied her wants. He saw without regret but for his hapless consort, the deepening gloom of the fading year; he felt, without feeling, but for her, the advancing rigor of winter; and if he, at times, remembered the sunny skies of the South, and the pleasure his tribe were there enjoying, it was only to sigh that she could not partake them. By night and by day, in sunshine and in cloud, in the calm and the tempest, he was with her, ministering to her wants, and cheering the hours of her hopeless captivity by his caresses, and untiring devotion. Now do you suppose that the vulture is capable of such heroic constancy, and generous self-sacrifice? Or did you ever hear any thing like this authenticated of the featherless vulture?

Moreau, 24th of 2d Month, 1836.

I have been gratified by occasionally seeing productions of the female mind inserted in your truly valuable paper. I say gratified, because it is an evidence of the march of improvement; I therefore take the liberty of forwarding to you a compilation from female authors, and if you think them consistent with the plan of your work, and worth attention, they may perhaps by publication be serviceable to some of our farmer's wives.

There's naught our higher progress doth preclude
So much as thinking we're already good.

A Farmer's Wife.

Management of Domestic Concerns.

In the management of domestic concerns order and method should be observed, and all hurry and confusion ought to be carefully avoided. If we would begin at the right end of the thing, it must be in the morning of the day and the morning of life; this is an essential point.

Sleep should never be considered a luxury, but as only a necessary refreshment to invigorate the body and prepare it for further exertions. Therefore the propriety and advantage of early rising should be, by example and precept, fixed on the youthful mind.

When these ideas are fixed, and the practice of them becomes habitual, business may be pursued without anxiety, and scolding,

and hurrying, which tend to irritate the temper, avoided. By pursuing this method, the numerous cares in a farmer's family are rendered easy and agreeable, and to a woman who has been properly instructed, and who has a knowledge of her own concerns, it is a source of peculiar satisfaction to know, that what she requires of her domestics, is consistent with the obligations they are under to her.

The mistress who treats them with mildness and suitable attention, is generally much better served, than she who treats them with harshness and severity. Their love and attachment creates a desire to please, and these mutual interests contribute very much to the quietude and happiness of all around.

By this mode of procedure, there is much time for literary pursuits, which are highly important.

It is from the mother, that the early education of children is mostly received. It is the example at home that will educate them:—your conversation, the business they see you transact, the likings and dislikings they hear you express; these will educate them, employ what teachers we may. The influence at home will have the mightiest influence in education.

Schoolmasters may cultivate the intellect, but the things done and said at home, are busy agents in forming the character; hence the importance of our families being well regulated; and if a mother would faithfully perform her duty to her offspring, she must be willing to make many sacrifices. The comfort and improvement of her family must be her principal object. Social visiting and virtuous intercourse with those we love, are some of the greatest comforts of life, yet even these must be under such restrictions that nothing may suffer from her absence.

While her children are young, and their minds susceptible of suitable impressions, she should sow the seeds of virtue, benevolence, and all those amiable qualities that will, in riper years, render them honorable and dignified in their pursuits, respectable and useful members of community, and virtuous and exemplary heads of families.—*Cultivator.*

Culture of the Ruta Baga.

The following is an account of the method I pursued in the cultivation of Ruta Baga. I sowed three-fourths of an acre, the most of which had been well manured the year preceding: soil, a deep sandy loam. The land was ploughed three times, and then thrown into low ridges, about twenty inches apart. These were smoothed down with a hoe, and a man followed with a sharpened stick to make a light drill in the top of the ridge. The seed was sown in these drills with a tin cup, which had two small holes punched in the bottom; in the top was fixed a tight wooden cover, to which was attached an upright handle two feet in length. The sower should walk at an even pace, shaking the cup gently. A boy followed him with a light roller, which completed the work. Several rows were sown on the ridges as they were left by the plough, and no difference could be observed between them and the others. A rain, however, followed the sowing. Had it continued dry, I doubt whether these rows would have succeeded as well as the others. I used a pound of seed. This I am aware would be considered a great deal;—but the cost of the seed is trifling in comparison with the value of the privileges of having a plant just where we want it. As soon as they were in the rough leaf, I thinned them out at from eight to twelve inches distance from each other.

1834.	*Expense of Cultivation.*	Dr.
4 mo. 26	—Ploughing ⅞ of a day, 12s.	$1 00
6 " 2	— do. do. do.	1 00
6 " 30	— do. ½ day, do.	75
6 " 30	—Ridging, ¼ day, do.	38
6 " 30	—½ day sowing, 3 men and 1 boy, at 5s.	1 25
	Seed, 1 lb. 8s.	1 00
7 " 12	—Weeding and thinning, 12 days, 5s.	7 50
7 " 21	—Weeding, 2⅝ days, 5s.	1 50
8 " 16	—do. 1½ days, 5s.	94
9 " 8	—Drawing from the ground, 5 days, 5s.	3 12
	Covering, 1 day, 5s.	62
	Interest on land at $50 per acre,	1 75
		$20 81

	Cr.	
By 40 bushels,	sold at 2s.	$10 00
By 486 do.	certainly worth 1s.	60 75
526 bushels,		$70 75
	Nett gain,	$49 94

But in my opinion, when corn is worth 50 cents the bushel, turneps ought not to be estimated as low as 12½ cents. I have not, however, made experiments sufficiently decisive to show what the relative value is, but I have fattened three oxen upon them, and those who had opportunities of judging, acknowledge that animals could hardly thrive better than they did.

I think, unless for house use, they should not be sown later than the 15th of 6th. mo.—The first weeding was put off much too long—labor more than double on that account. They should be sown 2½ or 3 feet apart, that the cultivator may be used.

Wm. R. Smith.

Macedon, 3d mo. 6, 1836.